

Report – DD2414 – Fall 2022

DD2414 Engineering project in Robotics, Perception and Learning 15.0 credits

1. Course analysis carried out by (name, e-mail):

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2. Description of the course evaluation process

There was no formal course evaluation. The evaluation happened more informally during meetings.

There were two students taking the course together during the fall of 2023. These were two 2nd year students from the Systems, Control and Robotics program.

3. Description of meetings with students

I met with the students before the course started as part of defining the project. Then we met once about half-way through the project to discuss readjustments to the initial goals. We also met at the very end for a final presentation and to discuss how the work could be the start of two thesis projects. I also ran into the students at least once a week as they were sitting in the lab.

Within the project the students met with the supervisor weekly and on demand.

4. Course design

The course gives students with a special interest in robotics, perception and learning the opportunity to read a specially designed project course in an area of their specific interest. Both course content and assessment are designed individually for each project. In principle, the course can be initiated both bottom-up (i.e. by students) and top-down (i.e. by teachers). To take the course a teacher must be willing, capable and have time to supervise the project and take on the role as supervisor and teacher in the course and ensure that the student engage in learning activities that make them meet the objectives of the course and the specific project. When appropriate the teacher can delegate much of the day-to-day activities in the project to, for example, a PhD student or postdoc, but must remain the one responsible.

Before a new project starts, a specification must be approved by the course coordinator. The specification should contain intended learning outcomes that can be accessed for each student and a description of how the examination should be carried out for both those specific to this project and the general ones that must be met for all projects.

The general objective of the course is to let students practice the skills required to participate professionally in project work in activities in robotics, perception, and learning. The general learning outcomes are that a student that has passed the course shall be able to

- choose a course of approach and define, follow and follow up a plan for carrying out the task in a given resource budget and

- present orally and in writing, a description and defense of a technical solution to a problem in robotics, perception and learning.

The project work is divided into two parts with a half time evaluation between to allow individual follow up take place.

5. The students' workload

The students worked similar hours / credit as in other project courses.

6. The students' results

Both students did very well and grew a lot during the project. Both went on to do a thesis project on the topic and both theses will result in papers submitted.

7. Students' answers to open questions

N/A

8. Summary of student's opinions

Based on my interaction with the students and the fact that they went on to do thesis projects on the same topic the course was well received.

9. Overall impression

Good course round thanks to a highly motivated PhD student supervisor (Maciej Wozniak) who also defined the project well.

10. Analysis

The weak area of the learning environment is the same as its strength, namely the flexibility and close relation to the research environment. If one can establish a close link between the students and the research environment much is gained, and this worked well this time.

I added a requirement to provide feedback about the course but I forgot to actually ask for the feedback and felt bad to come with the request months after the course.

11. Prioritized course development

Find some way to ensure that students give useful feedback at the end of the course.

12. Other information you want to share

N/A